What is claimed is:

1.   1.   A portable recording medium comprising:

2   a storage unit which stores therein storage

3 authentication information that authenticates a user, and

4 has an area that corresponds to the storage authentication

5 information;

6   a judgment unit operable to judge whether to perform

7 authentication;

8   a reception unit operable to receive reception

9 authentication information that authenticates a user, if the

10 judgment unit judges affirmative;

11   an authentication unit that is tamper-resistant and is

12 operable to judge whether the received reception

13 authentication information matches the storage

14 authentication information; and

15   a process unit operable to permit use of the area if

16 the reception authentication information is judged to match

17 the storage authentication information.

1.   2.   The recording medium of Claim 1, wherein:

2   the storage unit further stores therein other storage

3 authentication information different from the storage

4 authentication information, and has another area that

5 corresponds to the other storage authentication information,

6   the authentication unit, instead of judging whether the

7 received reception authentication information matches the

8 storage authentication information, judges whether the

9 received reception authentication information matches the

10 storage authentication information, and judges whether the

11 received reception authentication information matches the

12 other storage authentication information,

13 and the process unit further permits use of the other

14 area, if the reception authentication information is judged

15 to match the other storage authentication information.

1 3. The recording medium of Claim 1, further comprising

2 a detection unit operable to detect that the recording

3 medium is mounted to a terminal device, wherein

4 the judgment unit judges that authentication is to be

5 performed, after the detection unit has detected the mounting.

1 4. The recording medium of Claim 3, further comprising

2 a recording unit operable to record, when the detection

3 unit has detected the mounting, first history information

4 that indicates the mounting, the recording unit recording

5 in advance second history information that indicates another

6 mounting that occurred prior to the mounting, wherein

7 the judgment unit judges whether to perform

8 authentication, using the first history information and the

9 second history information.

1   5. The recording medium of Claim 4, wherein:

2   the first history information comprises first date/time

3   information that shows date and time in which the mounting

4   is detected,

5   the second history information comprises second

6   date/time information that shows date and time in which the

7   other mounting is detected,

8   and the judgment unit judges that authentication is to

9   be performed, if a difference in date and time between the

10   first date/time information and the second date/time

11   information is no smaller than a predetermined value.

1   6. The recording medium of Claim 4, wherein:

2   the first history information comprises first position

3   information that shows a position at which the mounting is

4   detected,

5   the second history information comprises second

6   position information that shows a position at which the other

7   mounting is detected,

8   and the judgment unit judges that authentication is to

9   be performed, if a difference in position between the first

10   position information and the second position information is

11   no smaller than a predetermined value.

1   7. The recording medium of Claim 4, wherein:

2   the storage authentication information is one of first

3   character information, first biological information, and

4   first combination information, the first character

5   information comprising at least one number, letter, and symbol,

6   the first biological information showing biological

7   characteristics of the user, and the first combination

8   information comprising first character information and first

9   biological information,

10   the reception authentication information comprises

11   second character information, second biological information,

12   and second combination information, the second character

13   information comprising at least one number, letter, and symbol,

14   the second biological information showing biological

15   characteristics of the user, and the second combination

16   information comprising second character information and

17   second biological information,

18   and the authentication unit, when the received reception

19   authentication information is the second character

20   information, judges whether the second character information

21   matches the first character information, and when the received

22   reception authentication information is the second biological

23   information, judges whether the second biological information

24   matches the first biological information, and when the

25   received reception authentication information is the second

26   combination information, judges whether all information

137

27 included in the second combination information matches all

28 information included in the first combination information.

1   8.   The recording medium of Claim 7, wherein

2   the first biological information and the second

3 biological information are one of fingerprint information,

4 voice print information, iris information, face-outline

5 information, and DNA information,

6   the fingerprint information showing characteristics of

7 the user's fingerprint pattern, the voice print information

8 showing characteristics of the user's voice print, the iris

9 information showing characteristics of the user's iris, the

10 face-outline information showing characteristics of outline

11 of the user's face, and the DNA information showing

12 characteristics of the user's DNA.

1   9. The recording medium of Claim 4, wherein:

2   the recording medium is assigned a telephone number that

3 the terminal device uses in communication,

4   the storage unit further stores therein communication

5 information that represents the telephone number,

6   the area further corresponds to the communication

7 information,

8   and the process unit further permits use of the area

9 that corresponds to the communication information.

1   10.   The recording medium of Claim 9, further comprising

2   a selection unit operable to receive selection of the

3 communication information, wherein

4   the process unit further permits use of the area that

5 corresponds to the communication information selected through

6 the selection unit.

1   11.   The recording medium of Claim 1, further comprising

2   a setting unit operable to receive the storage

3 authentication information and to write to the storage unit

4 the received storage authentication information in

5 correspondence with the area of the storage unit.

1   12.   The recording medium of Claim 11, wherein

2   the setting unit further receives communication

3 information that represents a telephone number assigned to

4 the recording medium, and writes to the storage unit the

5 received communication information in correspondence with

6 the area.

1   13.   A system for preventing unauthorized use of a

2 recording medium mounted to a terminal device, wherein

3   the recording medium comprises:

4   a storage unit which stores therein storage

5 authentication information that authenticates a user, and

6   has an area that corresponds to the storage authentication

7   information;

8   a judgment unit operable to judge whether to perform

9   authentication;

10   a reception unit operable to receive reception

11   authentication information that authenticates a user, if the

12   judgment unit judges affirmative;

13   an authentication unit that is tamper-resistant and

14   is operable to judge whether the received reception

15   authentication information matches the storage

16   authentication information; and

17   a process unit operable to permit use of the area if

18   the reception authentication information is judged to match

19   the storage authentication information,

20   and the terminal device comprises:

21   an input/output unit operable to receive input of the

22   reception authentication information and to output the

23   received reception authentication information to the

24   recording medium.

1   14.   The system of Claim 13, wherein:

2   the storage unit further stores therein other storage

3   authentication information different from the storage

4   authentication information, and has another area that

5   corresponds to the other storage authentication information,

6 the authentication unit, instead of judging whether the

7 received reception authentication information matches the

8 storage authentication information, judges whether the

9 received reception authentication information matches the

10 storage authentication information, and judges whether the

11 received reception authentication information matches the

12 other storage authentication information,

13 and the process unit further permits use of the other

14 area, if the reception authentication information is judged

15 to match the other storage authentication information.

1 15. The system of Claim 13, wherein

2 the recording medium further detects that the recording

3 medium is mounted to the terminal device, and performs

4 authentication after detecting the mounting.

1

1 16. The system of Claim 15, wherein

2 the recording medium records, when detecting the

3 mounting, first history information that indicates the

4 mounting, the recording medium recording in advance second

5 history information that indicates another mounting that

6 occurred prior to the mounting, and judges whether to perform

7 authentication, using the first history information and the

8 second history information.

1   17.   The system of Claim 16, wherein:

2   the first history information comprises first date/time

3   information that shows date and time in which the mounting

4   is detected,

5   the second history information comprises second

6   date/time information that shows date and time in which the

7   other mounting is detected,

8   and the recording medium judges to perform

9   authentication, if a difference between date and time between

10   the first date/time information and the second date/time

11   information is no smaller than a predetermined value.

1   18.   The system of Claim 16, wherein:

2   the first history information comprises first position

3   information that shows a position at which the mounting is

4   detected,

5   the second history information comprises second

6   position information that shows a position at which the

7   mounting is detected,

8   and the recording medium judges to perform

9   authentication if a difference in position between the first

10   position information and the second position information is

11   no smaller than a predetermined value.

1   19.   The system of Claim 16, wherein:

2   the recording medium is assigned a telephone number that

3 the terminal device uses in communication,

4   the storage unit further stores therein communication

5 information that represents the telephone number,

6   the area further corresponds to the communication

7 information,

8   and the process unit further permits use of the area

9 that corresponds to the communication information.

1   20.   The system of Claim 19, wherein:

2   the terminal device receives selection of the

3 communication information, and outputs the received

4 communication information to the recording medium,

5   and within the recording medium, the reception unit

6 receives the communication information outputted from the

7 terminal device, and the process unit further permits use

8 of the area that corresponds to the received communication

9 information.

1   21.   A terminal device comprising:

2   a storage unit which stores therein storage

3 authentication information that authenticates a user, and

4 has an area that corresponds to the storage authentication

5 information;

6   a judgment unit operable to judge whether to perform

7   authentication;

8   a reception unit operable to receive reception

9   authentication information that authenticates a user, if the

10   judgment unit judges affirmative;

11   an authentication unit that is tamper-resistant and is

12   operable to judge whether the received reception

13   authentication information matches the storage

14   authentication information; and

15   a process unit operable to permit use of the area if

16   the reception authentication information is judged to match

17   the storage authentication information.

1   22.   The terminal device of Claim 21, wherein:

2   the storage unit further stores therein other storage

3   authentication information different from the storage

4   authentication information, and has another area that

5   corresponds to the other storage authentication information,

6   the authentication unit, instead of judging whether the

7   received reception authentication information matches the

8   storage authentication information, judges whether the

9   received reception authentication information matches the

10   storage authentication information, and judges whether the

11   received reception authentication information matches the

12   other storage authentication information,

13   and the process unit further permits use of the other

14 area if the reception authentication information is judged

15 to match the other storage authentication information.

1   23.   A method used with a portable recording medium

2   including: a storage unit which stores therein storage

3   authentication information that authenticates a user and has

4   an area that corresponds to the storage authentication

5   information; and a tamper-resistant authentication unit, the

6   method comprising:

7   judging whether to perform authentication;

8   receiving reception authentication information that

9   authenticates a user, if the judgment to perform

10 authentication is affirmative;

11   judging whether the received reception authentication

12 information matches the storage authentication information;

13 and

14   permitting use of the area that corresponds to the storage

15 authentication information if the reception authentication

16 information is judged to match the storage authentication

17 information.

1   24.   A program used with a portable recording medium

2   including: a storage unit which stores therein storage

3   authentication information that authenticates a user and has

4   an area that corresponds to the storage authentication

5 information; and a tamper-resistant authentication unit, the

6 program comprising:

7   judging whether to perform authentication;

8   receiving reception authentication information that

9 authenticates a user, if the judgment to perform

10 authentication is affirmative;

11   judging whether the received reception authentication

12 information matches the storage authentication information;

13 and

14   permitting use of the area that corresponds to the storage

15 authentication information if the reception authentication

16 information is judged to match the storage authentication

17 information.

1   25.   The program of Claim 24, wherein

2   the program is recorded on a program recording medium

3 from which data can be read with use of a computer.